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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/492,934	01/27/2000	Michael Routtenberg	GENH114801	1571

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EXAMINER	
BORISSOV, IGOR N	

ART UNIT	PAPER NUMBER
3629	

DATE MAILED: 01/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/492,934	ROUTTENBERG, MICHAEL	
	Examiner	Art Unit	
	Igor Borissov	3629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *03* MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 September 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *100-125* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *100-125* is/are rejected.

7)☒ Claim(s) *105-118 and 123* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

Claims 105-118 and 123 are objected to because of the following informalities:

Claims 105, 110 and 115 are identical to **claim 101**, which appears to be a typographical error.

Claim 123. It appears that the phrase "a connector coupled the first port" (Page 6, first line) should be substituted to "a connector coupled *to* the first port"

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 121 and 122 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 121 recites the limitation "the one of the first port". There is insufficient antecedent basis for this limitation in the claim.

Claim 122 recites the limitation "the device". There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 100-125 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hsu et al. (US 6,380,637) (Hsu) in view of Conrady et al. (US 5,670,860) (Conrady).

Hsu teaches a system for off-board station and an electricity exchanging arrangement suitable for use with a mobile vehicle power system, comprising:

Claims 100. A station, including a port for coupling to a source of water or hydrogen (C. 4, L. 3-5, 28-31), and a port for connecting to an energy supply, and a controller (a processor and a meter) for controlling the flow of energy through the port (C. 13, L. 40-44; 63-64);

a mobile station including a port for accommodating water supplied from the station (C. 4, L. 29-31); an on-board fuel plant adapted to be coupled to water and electricity supply ports (C. 4, L. 22-27); and a controller (a processor and a meter) in communication with said fuel plant; wherein each controller is configured to monitor the bi-directional flow of electricity (C. 13, L. 63-64).

Hsu does not specifically teach that *said station controller*, which is adapted to control the flow of energy through the energy supply port, *is coupled to the water or hydrogen supply port*.

Conrady teaches a system for high power, high frequency, liquid-cooled transmission cable and charging arrangement, wherein an electrical conductor for transmission of electricity and a conduit for passage of a liquid coolant are integrated into a unitary transmission cable (C. 2, L. 20-22).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Hsu to include that said port for coupling to a source of water or hydrogen and said port for connecting to an energy supply are integrated into a unitary connector, as disclosed in Conrady, and thereby both coupled to said station controller, because it would advantageously simplify the connection procedure, thereby make it more attractive for customers. Information as to *first* and *second* port and *first* and *second* controller is non-functional language and given no patentable weight. Non-functional descriptive material cannot render non-obvious an invention that would otherwise have been obvious. *See: In re Gulack 703 F.2d 1381, 1385, 217 USPQ 401, 404 (Fed. Cir. 1983) In re Dembiczak 175 F.3d 994, 1000, 50 USPQ2d 1614, 1618 (Fed. Cir. 1999).* The specific example of non-functional descriptive material is provided

in MPEP 2106, Section VI: (example 3) a process that differs from the prior art only with respect to non-functional descriptive material that cannot alter how the process steps are to be performed.

Furthermore, Hsu teaches:

Claims 101, 105, 110, 115 and 119. Said system, which is coupled to a network (C. 10, L. 19-27).

Claims 102-103. Said system, including a power switch (C. 9, L. 52-56).

Claim 104. Said system, including a controller (C. 5, L. 1-11; C. 10, L. 19-65).

Claims 120-121. Said system, including a controller and a data port for coupling to a network (C. 5, L. 1-11; C. 10, L. 19-65).

Claims 106-108. Said system, including a data port for coupling to a network for receiving a data (C. 5, L. 1-11; C. 10, L. 19-65). Information as to the *specific content* of the received data is non-functional language and given no patentable weight. Non-functional descriptive material cannot render non-obvious an invention that would otherwise have been obvious. *See: In re Gulack 703 F.2d 1381, 1385, 217 USPQ 401, 404 (Fed. Cir. 1983) In re Dembiczak 175 F.3d 994, 1000, 50 USPQ2d 1614, 1618 (Fed. Cir. 1999).*

Claims 109. Said system, including a controller (C. 5, L. 1-11; C. 10, L. 19-65).

Claims 111-113. Said system, including controllers for monitoring operation of said fuel plant and converting energy used or generated into monetary values (C. 13, L. 40-59). Information as to *controlling said plant in dependence upon variations in electricity price* is non-functional language and given no patentable weight. Claims Directed to an Apparatus must be distinguished from the prior art in terms of structure rather than function, *In re Danly* 263 F.2d 844, 847, 120 USPQ 582, 531 (CCPA 1959).

A claim containing a "recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus" if the prior art apparatus teaches all the structural limitations of the claim. *Ex parte Masham*, 2 USPQ2d 1657 (bd Pat. App. & Inter. 1987). Thus the structural limitations of claims 111-113 are disclosed herein. Also as described the limitations of the claims do not distinguish the claimed apparatus from the prior art.

Claim 114. Said system, including a network for receiving data, wherein said network includes at least one controller (C. 10, L. 19-25).

Claims 116. Said system, including controllers for monitoring operation of said fuel plant and converting energy used or generated into monetary values (C. 13, L. 40-59). Information as to the *type* of the operating components (*third module*) is non-functional language and given no patentable weight. Non-functional descriptive material cannot render non-obvious an invention that would otherwise have been obvious. *See: In re Gulack 703 F.2d 1381, 1385, 217 USPQ 401, 404 (Fed. Cir. 1983) In re Dembiczak 175 F.3d 994, 1000, 50 USPQ2d 1614, 1618 (Fed. Cir. 1999).*

Claim 117. Said system, including a network for receiving a data, wherein said network includes at least one controller (C. 10, L. 19-25).

Claim 118. Said system, including controllers for monitoring operation of said fuel plant, and a network for transmitting data, wherein said network includes at least one controller (C. 10, L. 19-25). Information as to the *specific content* of the transmitted data is non-functional language and given no patentable weight. Non-functional descriptive material cannot render non-obvious an invention that would otherwise have been obvious. *See: In re Gulack 703 F.2d 1381, 1385, 217 USPQ 401, 404 (Fed. Cir. 1983) In re Dembiczak 175 F.3d 994, 1000, 50 USPQ2d 1614, 1618 (Fed. Cir. 1999).*

Claim 122. Hsu teaches: a station, including a port for coupling to a source of water or hydrogen (C. 4, L. 3-5, 28-31), and a port for connecting to an energy supply, and a controller (a processor and a meter) for controlling the flow of energy through the port (C. 13, L. 40-44; 63-64);

a hydrogen fuel cell device including a port for accommodating energy supply from the station (C. 4, L. 29-31); an on-board fuel plant adapted to be coupled to water or hydrogen and electricity supply ports (C. 4, L. 22-27); and a controller (a processor and a meter) in communication with said fuel plant; wherein each controller is configured to monitor the bi-directional flow of electricity (C. 13, L. 63-64).

Hsu does not specifically teach that *said station controller*, which is adapted to control the flow of energy through the energy supply port, *is coupled to the water or hydrogen supply port.*

Conrady teaches a system for high power, high frequency, liquid-cooled transmission cable and charging arrangement, wherein an electrical conductor for transmission of electricity and a conduit for passage of a liquid coolant are integrated into a unitary transmission cable (C. 2, L. 20-22).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Hsu to include that said port for coupling to a source of water or hydrogen and said port for connecting to an energy supply are integrated into a unitary connector, as disclosed in Conrady, and thereby both coupled to said station controller, because it would advantageously simplify the connection procedure, thereby make it more attractive for customers. Information as to *first* and *second* port and *first* and *second* controller is non-functional language and given no patentable weight. Non-functional descriptive material cannot render non-obvious an invention that would otherwise have been obvious. *See: In re Gulack 703 F.2d 1381, 1385, 217 USPQ 401, 404 (Fed. Cir. 1983) In re Dembiczak 175 F.3d 994, 1000, 50 USPQ2d 1614, 1618 (Fed. Cir. 1999).* The specific example of non-functional descriptive material is provided in MPEP 2106, Section VI: (example 3) a process that differs from the prior art only with respect to non-functional descriptive material that cannot alter how the process steps are to be performed.

Claim 123. Hsu teaches: a station, including a port for coupling to a source of water or hydrogen (C. 4, L. 3-5, 28-31), and a port for connecting to an energy supply, and a controller (a processor and a meter) for controlling the flow of energy through the port (C. 13, L. 40-44; 63-64);

a connector for coupling the water or hydrogen port to a hydrogen fuel cell device (C. 9, L. 41-63); said hydrogen fuel cell device including a port for accommodating energy supply from the station (C. 4, L. 29-31); an on-board fuel plant adapted to be coupled to water or hydrogen and electricity supply ports (C. 4, L. 22-27); and a controller (a processor and a meter) in communication with said fuel plant; wherein each controller is configured to monitor the bi-directional flow of electricity (C. 13, L. 63-64).

Hsu does not specifically teach that *said station controller*, which is adapted to control the flow of energy through the energy supply port, *is coupled to the water or hydrogen supply port*.

Conrady teaches a system for high power, high frequency, liquid-cooled transmission cable and charging arrangement, wherein an electrical conductor for transmission of electricity and a conduit for passage of a liquid coolant are integrated into a unitary transmission cable (C. 2, L. 20-22).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Hsu to include that said port for coupling to a source of water or hydrogen and said port for connecting to an energy supply are integrated into a unitary connector, as disclosed in Conrady, and thereby both coupled to said station controller, because it would advantageously simplify the connection procedure, thereby make it more attractive for customers. Information as to *first* and *second* port and *first* and *second* controller is non-functional language and given no patentable weight. Non-functional descriptive material cannot render non-obvious an invention that would otherwise have been obvious. *See: In re Gulack 703 F.2d 1381, 1385, 217 USPQ 401, 404 (Fed. Cir. 1983) In re Dembiczak 175 F.3d 994, 1000, 50 USPQ2d 1614, 1618 (Fed. Cir. 1999).* The specific example of non-functional descriptive material is provided in MPEP 2106, Section VI: (example 3) a process that differs from the prior art only with respect to non-functional descriptive material that cannot alter how the process steps are to be performed.

Claim 124. Hsu teaches: hydrogen fuel cell device including a port for accommodating energy supply from the station (C. 4, L. 29-31); an on-board fuel plant adapted to be coupled to water or hydrogen and electricity supply ports (C. 4, L. 22-27); and a controller (a processor and a meter) in communication with said fuel plant; wherein each controller is configured to monitor the bi-directional flow of electricity (C. 13, L. 63-64);

said hydrogen fuel cell device is adapted to be connected to a station, including a port for coupling to a source of water or hydrogen (C. 4, L. 3-5, 28-31), and a port for

connecting to an energy supply, and a controller (a processor and a meter) for controlling the flow of energy through the port (C. 13, L. 40-44; 63-64);

Hsu does not specifically teach that *said station controller*, which is adapted to control the flow of energy through the energy supply port, *is coupled to the water or hydrogen supply port*.

Conrady teaches a system for high power, high frequency, liquid-cooled transmission cable and charging arrangement, wherein an electrical conductor for transmission of electricity and a conduit for passage of a liquid coolant are integrated into a unitary transmission cable (C. 2, L. 20-22).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Hsu to include that said port for coupling to a source of water or hydrogen and said port for connecting to an energy supply are integrated into a unitary connector, as disclosed in Conrady, and thereby both coupled to said station controller, because it would advantageously simplify the connection procedure, thereby make it more attractive for customers. Information as to *internal* and *external* port and *internal* and *external* controller is non-functional language and given no patentable weight. Non-functional descriptive material cannot render non-obvious an invention that would otherwise have been obvious. *See: In re Gulack 703 F.2d 1381, 1385, 217 USPQ 401, 404 (Fed. Cir. 1983) In re Dembiczak 175 F.3d 994, 1000, 50 USPQ2d 1614, 1618 (Fed. Cir. 1999).* The specific example of non-functional descriptive material is provided in MPEP 2106, Section VI: (example 3) a process that differs from the prior art only with respect to non-functional descriptive material that cannot alter how the process steps are to be performed.

Claim 125. Hsu teaches: hydrogen fuel cell device including a port for accommodating energy supply from the station (C. 4, L. 29-31); an on-board fuel plant adapted to be coupled to water or hydrogen and electricity supply ports (C. 4, L. 22-27); and a controller (a processor and a meter) in communication with said fuel plant; wherein each controller is configured to monitor the bi-directional flow of electricity (C. 13, L. 63-64);

said hydrogen fuel cell device is adapted to be connected to a station, including a port for coupling to a source of water or hydrogen (C. 4, L. 3-5, 28-31), and a port for connecting to an energy supply, and a controller (a processor and a meter) for controlling the flow of energy through the port (C. 13, L. 40-44; 63-64);

Hsu does not specifically teach that *said station controller*, which is adapted to control the flow of energy through the energy supply port, *is coupled to the water or hydrogen supply port*.

Conrady teaches a system for high power, high frequency, liquid-cooled transmission cable and charging arrangement, wherein an electrical conductor for transmission of electricity and a conduit for passage of a liquid coolant are integrated into a unitary transmission cable (C. 2, L. 20-22).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Hsu to include that said port for coupling to a source of water or hydrogen and said port for connecting to an energy supply are integrated into a unitary connector, as disclosed in Conrady, and thereby both coupled to said station controller, because it would advantageously simplify the connection procedure, thereby make it more attractive for customers. Information as to *internal* and *external* port and *internal* and *external* controller is non-functional language and given no patentable weight. Non-functional descriptive material cannot render non-obvious an invention that would otherwise have been obvious. *See: In re Gulack 703 F.2d 1381, 1385, 217 USPQ 401, 404 (Fed. Cir. 1983) In re Dembiczak 175 F.3d 994, 1000, 50 USPQ2d 1614, 1618 (Fed. Cir. 1999).* The specific example of non-functional descriptive material is provided in MPEP 2106, Section VI: (example 3) a process that differs from the prior art only with respect to non-functional descriptive material that cannot alter how the process steps are to be performed.

Response to Amendment

Applicant's arguments filed 9/30/2004 have been fully considered but they are not persuasive.

In response to applicant's argument that the prior art does not teach the limitations of claim 100, specifically:

(a) a station including: (i) a first port for coupling to a supply of water or fluid constituents of water; (ii) a first port controller coupled to the first port for connecting to an energy supply source for controlling the tlow of energy through the first port;

(b) a hydrogen fuel cell device including: (i) a second port for coupling the first port to the device; (ii) an on-board fuel plant capable of selectively coupling to the second port for storing and/or producing hydrogen fuel using electricity and water supplied thereto; (iii) a second controller coupled to the on-board fuel plant; and one of the first port controller and the second controller for controlling an aspect of the exchange of one of electricity, water and fluid constituents of water with device, it is noted that Hue teaches:

a station, including a water or hydrogen supply port (C. 4, L. 3-5, 28-31), an energy supply port, and a controller (a processor and a meter) for controlling the flow of energy through the port (C. 13, L. 40-44; 63-64);

a mobile station including a port for accommodating water supplied from the station (C. 4, L. 29-31); an on-board fuel plant (C. 4, L. 22-27); and a controller; wherein each controller is configured to monitor the bi-directional flow of electricity (C. 13, L. 63-64). As per combining the energy supply port and the water supply port, Conrady was applied for this feature. The motivation to combine Hue and Conrady would be to simplify the connection procedure.

Conclusion

THIS ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication should be directed to Igor Borissov at telephone number (703) 305-4649.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Receptionist whose telephone number is (703) 872-9306.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's Supervisor, John Weiss, can be reached at (703) 308-2702.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington D.C. 20231

or faxed to:

(703) 872-9306 [Official communications; including After Final communications labeled "Box AF"]

Hand delivered responses should be brought to Crystal Park 5, 2451 Crystal Drive, Arlington, VA, 7th floor receptionist.

IB

01/05/2005

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